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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,893

04/14/2006

Claus Augenstein

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EXAMINER

FLANIGAN, ALLEN J

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,893	<b>Applicant(s)</b> AUGENSTEIN ET AL.	
	<b>Examiner</b> Allen J. Flanigan	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-14, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagome et al.

Please see the comments made in regard to the above rejection in the previous Office action. The replacement of the term “integral” with the term “one-piece” is not deemed to materially alter the scope of the claims. “One piece” as recited in the claims is construed to encompass elements that are rigidly affixed or joined together in a single unit, much the same as the terms “integral” and “integrally” are broadly construed. See ***In re Larson et al.*, 144 USPQ 347; *In re Morris*, 44 U.S.P.Q. 2d 1023.**

Regarding claims 14, 16, and 17, the recitations that the claimed heat exchanger is a “primary cooler for charge air” or “an intercooler for charge air” are recitations which concern intended use. See MPEP 2111.02 (II). As the claim does not recite the heat exchanger in combination with other components that would be involved in such a use (i.e. connected to a source of exhaust gas and an induction tube carrying charge air), at most such recitations require the prior art device be capable of such an intended use. Clearly, the exchanger of Nakagome et al. could be used to exchange heat between a great variety of different fluids.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagome et al.

Please see the comments made in regard to the above rejection in the previous Office action. As the applicant has not contested the Examiner's taking of Official Notice in the previous office action, it is considered to be admitted prior art. See ***In re Chevenard*, 60 U.S.P.Q. 239**.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagome et al. in view of Nickell.

Tube ends welded to tube sheets are sometimes expanded at the end, providing a rounded transitional region between the tube end and the rest of the tube (see Nickell). Such a transition allows smooth reduction in flow area from the expanded ends; it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to form such expanded ends with a transition region in the tubes of Nakagome et al. prior to welding them to the tube sheet.

Claims 1-14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagome et al. in view of Reider.

Assuming *arguendo* that the claims are construed to structurally define over a tube in shell exchanger design in which the tubes are welded to a tube sheet, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ a well known process such as impact extrusion to form one tube sheet integrally with tubes as taught in Rieder to form the heat exchanger design disclosed in Nakagome et al.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagome et al. in view of Rieder, as applied to claim 6 above, and further in view of Nickell.

Please see the comments made above in regard to the rejection of claim 15 over Nakagome et al. and Nickell alone, which are equally applicable to this rejection.

Applicant's arguments filed 1/4/2008 have been fully considered but they are not persuasive.

As noted above, the amendments to the claims do not appear to have defined over the prior art applied in the previous Office Action. "one-piece" is construed to include parts joined rigidly together, as by welding, particularly since the term "one-piece" does not even appear in the specification, nor is it specifically defined therein as being limited to parts formed from a single block of material by e.g. impact extrusion. See MPEP 2111. It is readily apparent that the term "one piece" is used in the art to refer to joined parts, such as welded components in heat exchangers, as evidenced by US Patent #3,939,908 ("the unit being welded or brazed as a one-piece unit with the lateral flanges and tube plates rigidly connected together") and US Patent #3,593,782 ("inner tube 30 is formed in lengths and welded together as at 38 to form a unitary one-piece construction"). Even if the claims were drafted to define over the structure produced by welding tube ends to a tube sheet as in Nakagome et al., applicants themselves admit that impact

extrusion is a known process, and Rieder shows that its use specifically to form tube sheet and tube assemblies is known in the art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (571) 272-4910. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Allen J. Flanigan/  
Primary Examiner, Art Unit 3744